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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,661

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5474

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7590

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EXAMINER

LE, DINH THANH

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,661	Applicant(s) ITO ET AL.	
	Examiner DINH T. LE	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-46 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 25-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/6/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 25-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 25, it is unclear how the circuit can be "characterized" on line 4, how the inductance element can "adjust" a negative resistance value on line 7, how the constant lines having two terminals can be connected in parallel to one terminal, and how the recitation of the limitation "inductance element . . . a negative resistance value" on lines 5-8, "output terminal" and "lines connected in parallel to at least one of terminals" is read on the preferred embodiment. Insofar as understood, no such limitation is seen on the drawings. Also, the description of the claimed invention is incomplete because the inductance element and an output terminal are not connected to the transistor and the lines so that the claimed resistance circuit may not perform function. The same is true for claims 28 and 31.

In claim 26, it is unclear where the "signal conductor" on line 6 comes from and how it is related to other claimed elements. The same is true for claim 29.

In claims 40-43, it is unclear how the recitation "an output . . . transistor" on lines 3-5 is read on the preferred embodiment. Insofar as understood, no such connection is seen on the drawings.

In claim 44-46, it is unclear how the recitation "resonator" is read on the preferred embodiment. Insofar as understood, no such resonator is seen on the drawings.

The remaining claims are dependent from the above claims and therefore also considered indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31-43 and 46 are rejected under 35 USC 103 (a) as being unpatentable over Figure 1 of the admitted prior art in view of Shino et al (JP2000-228602).

Regarding claims 31-38, the admitted prior art discloses in Figure 1 a circuit comprising:

- a transistor (101) and distributed lines (102d, 103, 104) being coupled to the transistor (101)

However, the admitted prior art fails to suggest that the distributed line (102d) comprise two parallel lines.

Nevertheless, Shino et al suggest in Figures 1-4 an inductor comprising two parallel lines (4-5) for facilitating frequency regulation, see the Abstract.

It would have been obvious to a person having skill in the art at the time the invention was made to replace the line (102d) of the admitted prior art with two parallel lines as suggested by Shino et al for the purpose of facilitating frequency regulation.

Regarding claims 32-40, it is well known in the art that the length of the distributed line determines the inductance value of the inductor. Thus, selecting the length for the lines as claimed is considered to be a matter of a design expedient for an engineer depending upon the particular application in which the circuit of the admitted prior art is to be used. Lacking of showing any criticality, it would have been obvious to a person having skill in the art at the time the invention was made to select the length for the lines of the modified circuit of the admitted prior art as claimed for the purpose of providing a predetermined inductance value in order to accommodate with a frequency plan of a predetermined system.

Regarding claims 41-43, wherein a resistor (117) is connected to a DC voltage (V_d) in Figure 1 of the admitted prior art for biasing the transistor (101).

Regarding claim 46, since the circuit of the admitted prior art is used in a predetermined filter circuit it inherently connected to a resonator of the predetermined filter circuit.

Allowable Subject matter

Claims 25-30 and 44-45 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. These claims are allowable because the prior art of record fails to suggest the “inductance element” as combined in claim 25 and “capacitance element” as combined in claim 28.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan, can be reached at (571) 272-1988.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DINH T. LE/

Primary Examiner, Art Unit 2816